

City of Bolivar Annual AOC Report Summary

2011*

Bypasses = 12

| Date | Precip | Duration | Gallons | SSOs = 10 that reached Waters of U.S. | | | Total SSOs = 13 | |
|------------|-----------|----------|-------------|---------------------------------------|--------|----------|-----------------|----------------------|
| Date | Precip | Duration | Gallons | Date | Precip | Duration | Gallons | Location |
| 2/14/2011 | snow melt | 3 days | 9.8 MG | 2/25/2011 | 1.39" | 6 hours | 81,000 | J4-MH-120 near WWTP |
| 3/2/2011 | 1.39" | 6 days | 18.5 MG | 3/8/2011 | 1.32" | 10 hours | 78,000 | J4-MH-120 near WWTP |
| 3/8/2011 | 2" | 10 days | 28 MG | 3/16/2011 | -- | 45 min | 200 | G4-MH-005 S Missouri |
| 3/19/2011 | 2.35" | 4 days | 11.3 MG | 3/20/2011 | 1.74" | 2 hours | 7,200 | J4-MH-090 near WWTP |
| 3/26/2011 | 0.95" | 1 day | 4.4 MG | 3/20/2011 | 1.74" | 2 hours | 22,500 | J4-MH-120 near WWTP |
| 4/21/2011 | 4.7" | 9 days | 35.3 MG | 4/25/2011 | 1.35" | 18 hours | 222,000 | J4-MH-120 near WWTP |
| 5/12/2011 | 0.93" | 0.5 days | 99,000 gal | 9/27/2011 | -- | 2 hours | 2,400 | G5-MH-375 S Main |
| 5/19/2011 | 1.3" | 1 day | 180,000 gal | 10/7/2011 | -- | 45 min | 700 | G5-MH-375 S Main |
| 5/19/2011 | 3.8" | 12 days | 34 MG | 12/20/2011 | 1.8" | 4 hours | 6,750 | F5-MH-095 S Lillian |
| 8/8/2011 | 2.6" | 1 day | 3 MG | 12/20/2011 | 1.8" | 4 hours | 6,750 | F5-MH-090 S Lillian |
| 11/8/2011 | 2.5" | 1 day | 3 MG | | | | | |
| 12/19/2011 | 1.8" | 2 days | 4.9 MG | | | | | |

NOV

March 2011 Ammonia and BOD

June 2011 Ammonia and BOD

May 2011 Ammonia

2010*

Bypasses = 8 + 3

| Date | Precip | Duration | Gallons | SSOs = 14 + 2 that reached Waters of U.S. | | | Total SSOs = 19 + 2 | |
|-----------|--------|----------|---------|---|--------|------------|---------------------|------------------------|
| Date | Precip | Duration | Gallons | Date | Precip | Duration | Gallons | Location |
| 1/21/2010 | 0.56" | 1 day | 2.8 MG | 1/20/2010 | -- | 15 min | 3000 | G5-MH-085 College & MO |
| 1/24/2010 | 1.1" | 2 days | 6.6 MG | 2/21/2010 | 1.18 | 3 hours | 30,000 | J4-MH-120 near WWTP |
| 2/21/2010 | 1.2" | 2.5 days | 8.1 MG | 3/22/2010 | 1.67 | 2 hours | 12,000 | J4-MH-120 near WWTP |
| 3/20/2010 | 3.04" | 8 days | 27.6 MG | 3/25/2010 | 1.11 | 7 hours | 63,000 | J4-MH-120 near WWTP |
| 4/2/2010 | 0.73" | 6.5 days | 13.8 MG | 5/13/2010 | 1.24 | 45 min | 10,000 | J4-MH-120 near WWTP |
| 5/13/2010 | 4.71" | 6 days | 26 MG | 5/14/2010 | 2.86 | 10 hours | 60,000 | F5-025 W Broadway |
| 5/19/2010 | 1.82" | 4 days | 19.4 MG | 5/14/2010 | 2.86 | 5.25 hours | 12,600 | F5-040 W Broadway |
| 5/25/2010 | 1.5" | 1 day | 2.4 MG | 5/14/2010 | 2.86 | 11.5 hours | 24,150 | G4-005 S Missouri |
| 7/16/2010 | 3.0" | 13 hours | 2 MG | 5/14/2010 | 2.86 | 8.75 hours | 13,125 | J4-090 near WWTP |
| 9/1/2010 | 4.8" | 1 day | 4.0 MG | 5/14/2010 | 2.86 | 22 hours | 276,000 | J4-120 near WWTP |
| 9/15/2010 | 1.6" | 1.5 days | 5.9 MG | 5/20/2010 | 1.82 | 1.5 hours | 1,800 | G4-005 S Missouri |
| | | | | 5/21/2010 | 0.71 | 16 hours | 96,000 | J4-120 near WWTP |
| | | | | 5/21/2010 | 0.71 | 10 hours | 18,000 | G4-005 S Missouri |
| | | | | 6/4/2010 | -- | 72 hours | 15,000 | Lift station #4 |
| | | | | 7/16/2010 | | 3 3 hours | 36,000 | J4-MH-120 near WWTP |
| | | | | 9/1/2010 | 4.8 | 5 hours | 45,000 | J4-MH-120 near WWTP |

NOV none

Letter of Warning July 2010 Ammonia

Letter of Warning October 2010 Ammonia

2009*

Bypasses = 4 + 6 (one miscount by City)

| Date | Precip | Duration | Gallons |
|------------|--------|------------|---------|
| 9/21/2009 | 2.6" | 17.5 hours | 3.3 MG |
| 10/8/2009 | 5" | 4 days | 16.7 MG |
| 10/30/2009 | 1.32" | 3.5 days | 12.8 MG |
| 11/15/2009 | 1.15" | 1 day | 2.1 MG |
| 2/11/2009 | 1.5" | 10 hours | 1.7 MG |
| 3/28/2009 | 1.25" | 1 day | 3.0 MG |
| 4/18/2009 | 1.56" | 3 days | 11.4 MG |
| 5/1/2009 | 3.3" | 3.3 days | 14.2 MG |
| 5/8/2009 | 2.9" | 3 days | 11.3 MG |
| 6/16/2009 | 2.29" | 1 day | 4.8 MG |

SSOs = 4 + 27 that reached Waters of U.S. Total SSOs = 8 + 30

| Date | Precip | Duration | Gallons | Location |
|------------|--------|-----------|---------|-----------------------|
| 10/8/2009 | 5" | 27 hours | 16,200 | G4-MH-005 S Missouri |
| 10/8/2009 | 5" | 34 hours | 3.5 MG | J4-MH-120 near WWTP |
| 10/8/2009 | 5" | 1 hour | 20,000 | J4-090 near WWTP |
| 10/30/2009 | 1.32" | 3 hours | 27,000 | J4-MH-120 near WWTP |
| 1/9/2009 | -- | 45 min | 300 | Lift Station 5 |
| 2/11/2009 | 1.5" | 4 hours | 60,000 | J4-MH-120 near WWTP |
| 3/28/2009 | 1.23" | 2.5 hours | 40,000 | J4-MH-090 near WWTP |
| 3/28/2009 | 1.23" | 2.5 hours | 40,000 | J4-MH-120 near WWTP |
| 4/19/2009 | 1.56" | 5 hours | 80,000 | J4-MH-120 near WWTP |
| 4/30/2009 | -- | .5 hours | 50 | 429 S Springfield |
| 5/1/2009 | 3.18" | 12 hours | 85,000 | J4-MH-120 near WWTP |
| 5/8/2009 | 2.9" | 13 hours | 100,000 | J4-090 near WWTP |
| 5/8/2009 | 2.9" | 13 hours | 100,000 | J4-MH-120 near WWTP |
| 5/8/2009 | 2.9" | 30 hours | 93,000 | F5-95 S Lillian |
| 5/8/2009 | 2.9" | 8 hours | 19,200 | F5-040 W Broadway |
| 5/8/2009 | 2.9" | 8 hours | 14,400 | F5-010 W Broadway |
| 5/8/2009 | 2.9" | 1 hour | 1,500 | G5-175 S Albany |
| 5/8/2009 | 2.9" | 30 hours | 55,800 | F5-100 S Lillian |
| 5/8/2009 | 2.9" | 25 hours | 15,000 | F5-175 S Missouri |
| 5/8/2009 | 2.9" | 1 hour | 10,000 | Lift Station 2 |
| 5/8/2009 | 2.9" | 15 min | 300 | Lift Station 3 |
| 6/10/2009 | 1.83" | 10 hours | 22,000 | F5-MH-185 W Jefferson |
| 6/10/2009 | 1.83" | 10 hours | 22,000 | G4-MH-005 S Missouri |
| 6/16/2009 | 2.29" | 8 hours | 130,000 | J4-MH-120 near WWTP |
| 6/16/2009 | 2.29" | 2.5 hours | 60,000 | J4-MN-090 near WWTP |
| 6/16/2009 | 2.29" | 6 hours | 3,600 | G4-MH-005 S Missouri |
| 6/16/2009 | 2.29" | 7 hours | 21,000 | F5-MH-010 W Broadway |

NOV May 2009 Ammonia

2008

Bypasses = 2 + 13

| Date | Precip | Duration | Gallons | Date | Precip | Duration | Gallons | Location |
|-----------|--------|----------|---------|------------|--------|------------|---------|------------------------|
| 9/3/2008 | 3.11" | 1.5 days | 4.7 MG | 3/18/2008 | 4.3 | 33 hours | 59,400 | DF 1 S Missouri |
| 9/13/2008 | 3.8" | 2 days | 8.6 MG | 4/10/2008 | 3.2 | 4 hours | 1,200 | J4 S Albany |
| 1/8/2008 | 1.26" | 1 day | 4.1 MG | 4/10/2008 | 3.2 | 10 hours | 5,000 | DIB 2 W Jefferson |
| 2/11/2008 | snow | 1 day | 2.0 MG | 4/10/2008 | 3.2 | 6 hours | 13,000 | I6 E Broadway |
| 2/16/2008 | 2.0" | 3 days | 11.1 MG | 4/10/2008 | 3.2 | 6 hours | 13,000 | I12 W Broadway |
| 3/3/2008 | 1.6" | 3 days | 12.2 MG | 5/23/2008 | -- | .5 hours | 1,500 | Lift Station 2 |
| 3/18/2008 | 4.8" | 6 days | 24.1 MG | 6/15/2008 | -- | 1.75 hours | 500 | Lift Station 2 |
| 3/31/2008 | 5.5" | 14 days | 44.1 MG | 7/9/2008 | -- | 1.5 hours | 1,000 | Lift Station 1 |
| 4/24/2008 | 1.1" | 4 days | 8.2 MG | 9/14/2008 | 3.8 | 45 minutes | 37,500 | Lift Station 1 |
| 5/7/2008 | 2.4" | 3 days | 12.6 MG | 9/14/2008 | 3.8 | 8 hours | 1,500 | DF1, I12, I13 Manholes |
| 5/15/2008 | 1.0" | 13 hours | 1.7 MG | 10/30/2008 | -- | 10 minutes | 500 | Lift Station 1 |
| 6/2/2008 | 3.6" | 2 days | 9 MG | 12/3/2008 | -- | 1 hour | 500 | Lift Station 1 |
| 6/9/2008 | 1.9" | 2 days | 8.1 MG | | | | | |
| 6/13/2008 | 1.0" | 1 day | 3.8 MG | | | | | |
| 6/28/2008 | 1.5" | 1 days | 4.6 MG | | | | | |

SSOs = 12 that reached Waters of U.S. Total SSOs = 7 + 13

NOV May 2008 Ammonia and BOD

NOV June 2008 Ammonia and BOD

LOW March 2008 BOD

NOV April 2008 Ammonia and BOD

Identified 90 I&I problems and 45 repaired but no indication how they were repaired.

No information on any re-lining or replacement of sewer lines in 2011.

No information on any manhole rehab or repairs in 2011.

Notes that manhole rehab and lining planned in south collection basin in 2012 but no idea of what or when.

Notes that capacity study on another collection basin is planned for 2012 but no idea of where or what basin.

It appears that City of Bolivar is not as far along in its progress to stop I&I as previous reports had indicated.

Capacity analysis on significant mains was due 12/31/11. It was not included with annual report. Why?